Application No. 10/539,230

Technology Center 3616

Reply dated April 14, 2009

In Response to Office Action dated December 12, 2008

<u>Amendments to the Drawings:</u>

The attached two (2) sheets of drawings include changes to Figures 2 and 3

only. The first sheet, which contains Figure 2 only, replaces the original

drawing sheet that also contained Figure 2 only. The second sheet, which

contains Figure 3 only, replaces the original drawing sheet that also contained

Figure 3 only. The original drawing sheets containing Figures 1, 4, 5 and 6

are not being replaced.

In Figure 2, a second view (b) has been added showing a wheel suspension

assembly adapted for installation on a pair of non-steering wheels of a vehicle,

achieved by eliminating the steering system components 8 through 11 of

original Figure 2 (now Figure 2(a)).

In Figure 3, previously omitted reference numbers has been added in

accordance with the description of Figure 3 on pages 9 of the specification.

Attachment(s): Replacement Sheet(s) (2)

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REMARKS

As of the filing of the present reply, claims 1-36 were pending in the above-identified US Patent Application. Claims 5, 13-24, and 31-36 are currently withdrawn due to an election requirement.

In the Office Action, the Examiner maintained the election requirement, objected to the drawings, rejected claims 4, 6 and 30 under 35 USC §112, second paragraph, rejected claims 1-4 and 6-12 under 35 USC §102 or 103, and deemed claims 25-29 (which depend from claim 1) to recite allowable subject matter.

In the present reply, Applicant has amended the specification, drawings and claims as set forth above. More particularly:

The drawings have been revised to add a second view (b) to Figure 2, showing a wheel suspension assembly of the invention adapted for installation on a pair of non-steering wheels of a vehicle by eliminating the steering system components 8 through 11 shown in original Figure 2 (now Figure 2(a)).

The specification has been revised to make reference to the additional view (b) of Figure 2, and to identify the original view of Figure 2 as Figure 2(a).

The claims have been amended to eliminate reference numbers.

Independent claim 1 has been amended to incorporate the limitations of its dependent claim 25. Because claim 25 was deemed to recite allowable subject matter, claim 1 and all claims depending therefrom are believed to be allowable over the prior art.

Dependent claims 4 and 16 have been amended to clarify that the "tilting pivot" is a point located at the joint (12) of the first pendulum arm (1), as evident from Figures 2 and 5.

In view of its limitations being incorporated into its parent claim 1, claim 25 has been canceled and its dependent claim 26 has been amended to depend directly from claim 1.

New dependent claim 37 has been presented to recite a limitation that finds support in Applicant's specification at page 8, lines 15-16.

New dependent claim 38 has been presented to recite one of the alternative limitations of original claim 6.

New independent claim 39 has been presented that is similar to original claim 1, but recites a vehicle as having a pair of wheels (24) and at least a third wheel (as shown in Figure 1), recites a suspension assembly that causes the pair of wheels to move in opposite directions parallel to their axes

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of rotation so as to have variable track widths, and omits the recitation of the wheel orientation defining rod (6) and coupling means (22). New dependent claim 40 has been presented that specifies the pair of wheels are two front wheels of the vehicle, and new dependent claim 41 specifies that the pair of wheels are two steering wheels of the vehicle. Support for the pair of wheels and the third wheel of new claims 39, 40 and 41 can be found in Applicant's specification at the bottom of page 7, Figure 1, and elsewhere. Support for movement of the pair of wheels in opposite directions parallel to their axes of rotation to vary the track width of the wheels is evident from Figure 1.¹

New dependent claim 42 is based on original claim 3, but depends from new independent claim 39.

New dependent claims 43 and 44 depend from new independent claim 39 and recite the same subject matter as new claims 37 and 38.

New dependent claim 45 depends from new independent claim 39 and recites the wheel orientation defining rod (6) and coupling means (22) recited in independent claim 1 and omitted in new independent claim 39.

According to MPEP §2163 II.A.3(a), "drawings alone may provide a 'written description' of an invention as required by [35 USC §112, first paragraph]," and "[i]n those instances where a visual representation can flesh out words, drawings may be used in the same manner and with the same limitations as the specification." (Citations omitted).

New dependent claim 46 through 49 are based on original claims 5, 7, 28 and 29, respectively, but depend from new independent claim 39.

Applicant respectfully believes the above amendments do not present new matter. Favorable reconsideration and allowance of remaining claims 1-24 and 26-49 are respectfully requested in view of the above amendments and the following remarks.

Objection to the Drawings

The Examiner objected to the drawings under 37 CFR §1.83(a) for failing to show every feature of the invention specified in the claims.

In particular reference to claims 13-24 and 31-36, the Examiner explained that "the rear steered wheels (plurality) must be shown or the feature(s) canceled from the claims." Page 5, lines 9-15, state that the vehicle can be a three-wheeled or four-wheeled vehicle, and "[a]II the above features of the invention described in connection with the front wheels may also apply to the rear wheels." In other words, for example, the assembly shown in original Figure 2 (now Figure 2(a)) is not limited to a pair of front wheels, but instead the wheels (not shown) to be mounted to the spindles 3 could be a pair of rear wheels. As such, the assembly of original Figure 2 can be used to

control and steer the front <u>or</u> rear wheels of a three-wheeled or four-wheeled vehicle. In Figure 1, a three-wheeled vehicle with a pair of rear steering wheels would entail reversing the passenger compartment on the vehicle and providing a suitable extension for the steering shaft 11. Therefore, Figure 2 is also fully representative of a suspension assembly for a three-wheeled or four-wheeled vehicle with a pair of steering rear wheels.

Finally, by simply eliminating the steering components 8 through 11 of Figure 2 (as done in the new lower view (b) of Figure 2), a steering suspension assembly becomes a non-steering suspension assembly.

This aspect of the invention is evident from page 3, lines 4 and 5, which teach that "[w]hile the wheel rotation defining rod may be a track rod, what is preferred is that said rod is a steering rod. In other words, preferably, the front wheels are steerable." According to their ordinary meanings, a "track rod" denotes a non-steerable system for a non-steerable wheel, whereas a "steering rod" denotes a steering system for a steerable wheel (hence the further limitation in claims 2 and 14 that the "second wheel orientation defining rod is a steering rod"). Applicant believes that such aspects of the invention are well within the understanding of those skilled in the art, even without the amendments to the Figures, but now especially in light of amendments to the

Figure 2.

In reference to claim 6, the Examiner explained that "it is not shown or clear how a cardan joint would be used to connect the pendulum arm to the front wheel." However, the upper lefthand view of original Figure 3 illustrates this aspect of the invention, in that a cardan joint 4' is shown connecting the pendulum arm 1 to the spindle 3 for one of the wheels, as described at the bottom of page 9 of the specification.

In view of the above, Applicant respectfully requests withdrawal of the objection under 37 CFR §1.83(a).

Rejection under 35 USC §112, Second Paragraph

Claims 4, 6 and 30 were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as his invention. Applicant respectfully requests favorable reconsideration in view of the following comments.

Under this rejection, the Examiner stated that claims 4, 6 and 30 are unclear.

The limitation in question in claim 4 is described at page 3, lines 19-26, of Applicant's specification, and is evident from viewing Figures 2 and 5, the latter of which is a plan view of the assembly of Figure 2. Specifically, Figures 2 and 5 show the pendulum arms 1 coupled to a chassis at joints 12, and show the steering rods 6 coupled to a steering swivel arm 8 at joints/coupling means (22 in Figure 2, and connecting the steering rods 6 to the swivel arm 8 in Figures 2 and 5). The joints 12 and 22 are aligned on what can be envisioned as a line that defines the "tilting pivot" for the pendulum arms 1 about their joints 12, as well as the actuating cylinders 19 about their joints 21.

Claim 6 recites "a cardan joint for coupling said first pendulum arm to at least one of said chassis and said first front wheel." Figure 2 shows a cardan joint 13 connecting the pendulum arm 1 to the sub-frame assembly 2 (and therefore to the chassis as stated on page 8, lines 15-20). As discussed under the objection to the drawings, Figure 3 shows a cardan joint 4' connecting the pendulum arm 1 to the spindle 3 for one of the wheels. Finally, Applicant's specification at page 8, lines 15-20, describes the benefits of using a cardan joint.

Claim 30 can also be understood from viewing Figures 2 and 5 together. As seen in Figure 5, the pendulum arm joint 12 lies directly behind the wheel 24 and transversely (with respect to the vehicle) between the two

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planes defined by the sides of the wheel 24 when it is in the narrow track

position shown in Figure 5.

In view of the above, Applicant respectfully requests reconsideration

and withdrawal of the rejections under 35 USC §112, second paragraph.

Prior Art Rejections

As noted above, independent claim 1 and its dependent claims are

believed to be allowable over the prior art of record in view of the incorporation

of the limitations of allowable dependent claim 25 into claim 1. As claim 1 is

the parent claim and generic to all of claims 2-36, rejoinder of nonelected

claims 5, 13-24, and 31-36 is respectfully requested.

New independent claim 39 is also believed to be allowable over the

prior art of record, for the reasons set forth under "Allowable Subject Matter"

on page 8 of the Office Action, namely, a pair of wheels that move transverse

to their axes of rotation, but in opposite directions, in order to tilt the chassis,

combined with the limitation that the pair of wheels have variable track widths.

<u>Closing</u>

In view of the above, Applicant believes that all issues outstanding

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from the Office Action have been addressed, and that the claims define

patentable novelty over all the references, alone or in combination, of record.

It is therefore respectfully requested that this patent application be given

favorable reconsideration.

Though the above remarks are primarily limited to certain limitations

of the claims, Applicant believes that other limitations of the claims provide

additional grounds of patentability over the cited references, and Applicant

reserves the right to present these additional grounds at a later time.

Should the Examiner have any questions with respect to any matter

now of record, Applicant's representative may be reached at (219) 462-4999.

Respectfully submitted,

April 14, 2009

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Attachments: Replacement Drawing Sheets (2)

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